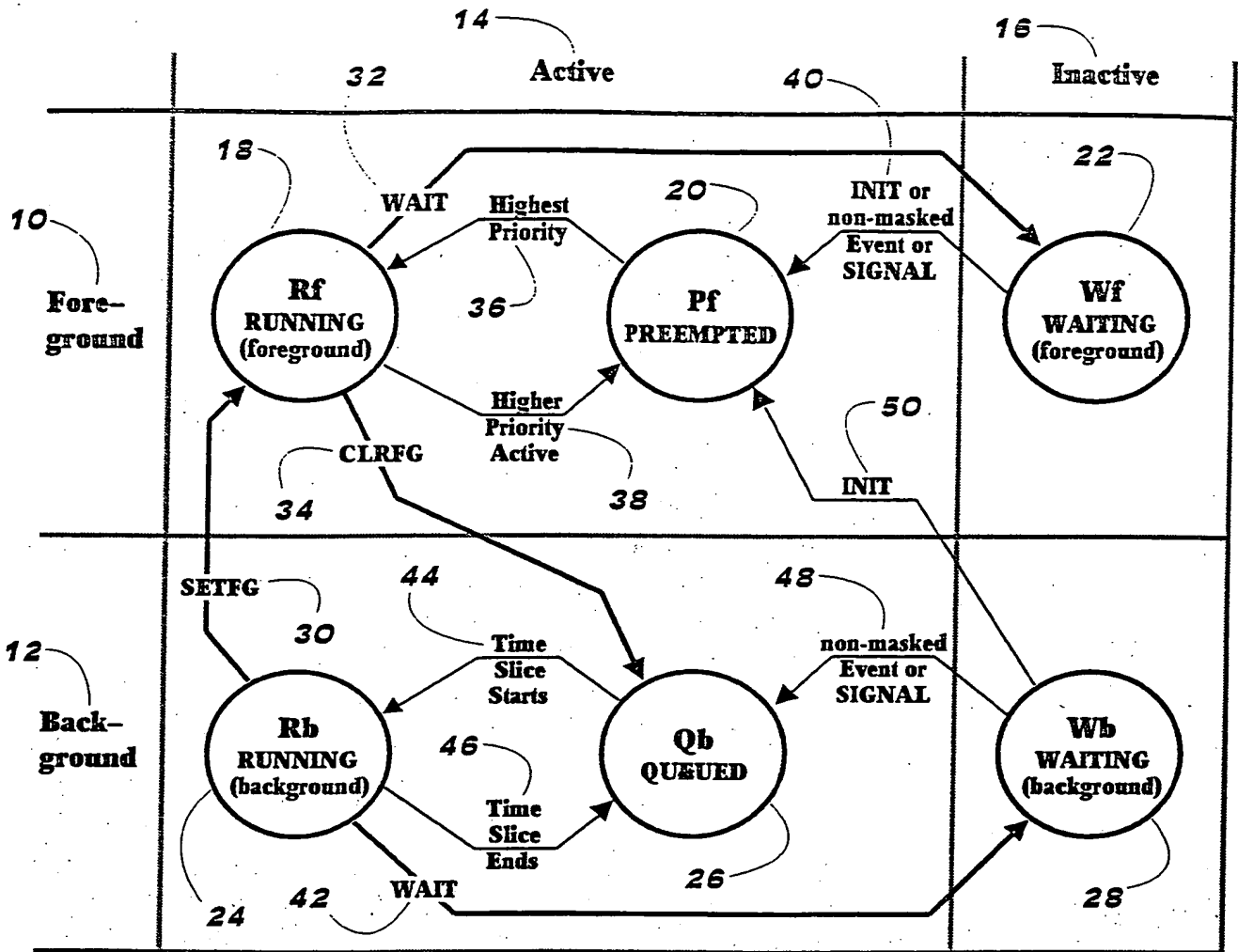
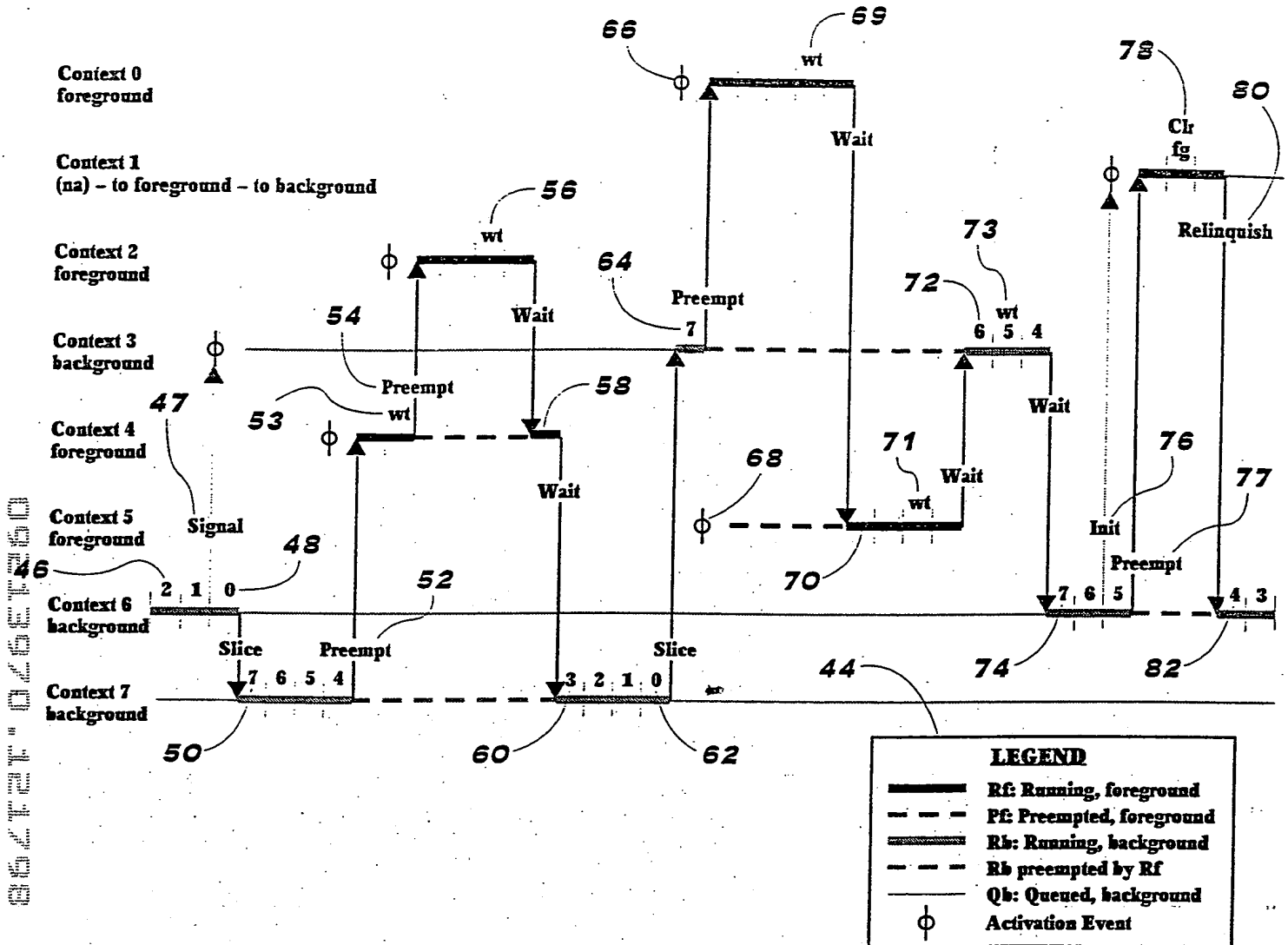


Figure\_1

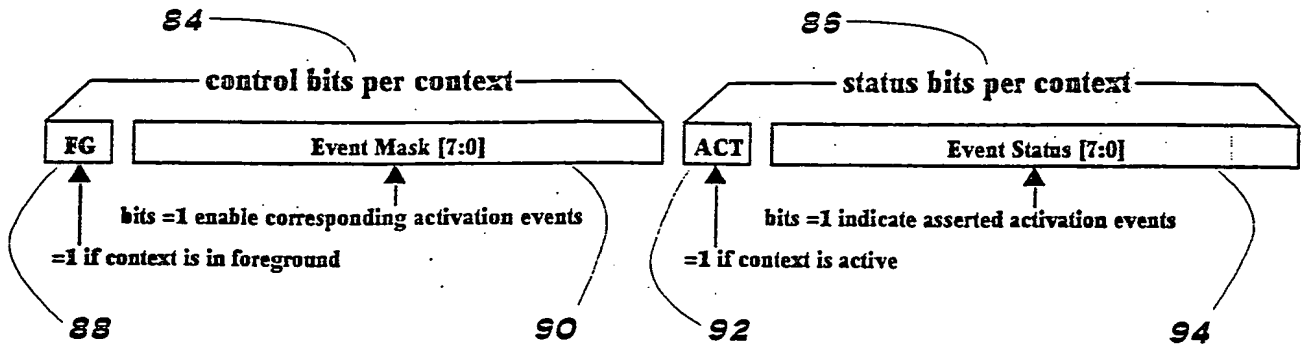


862727 025ET260

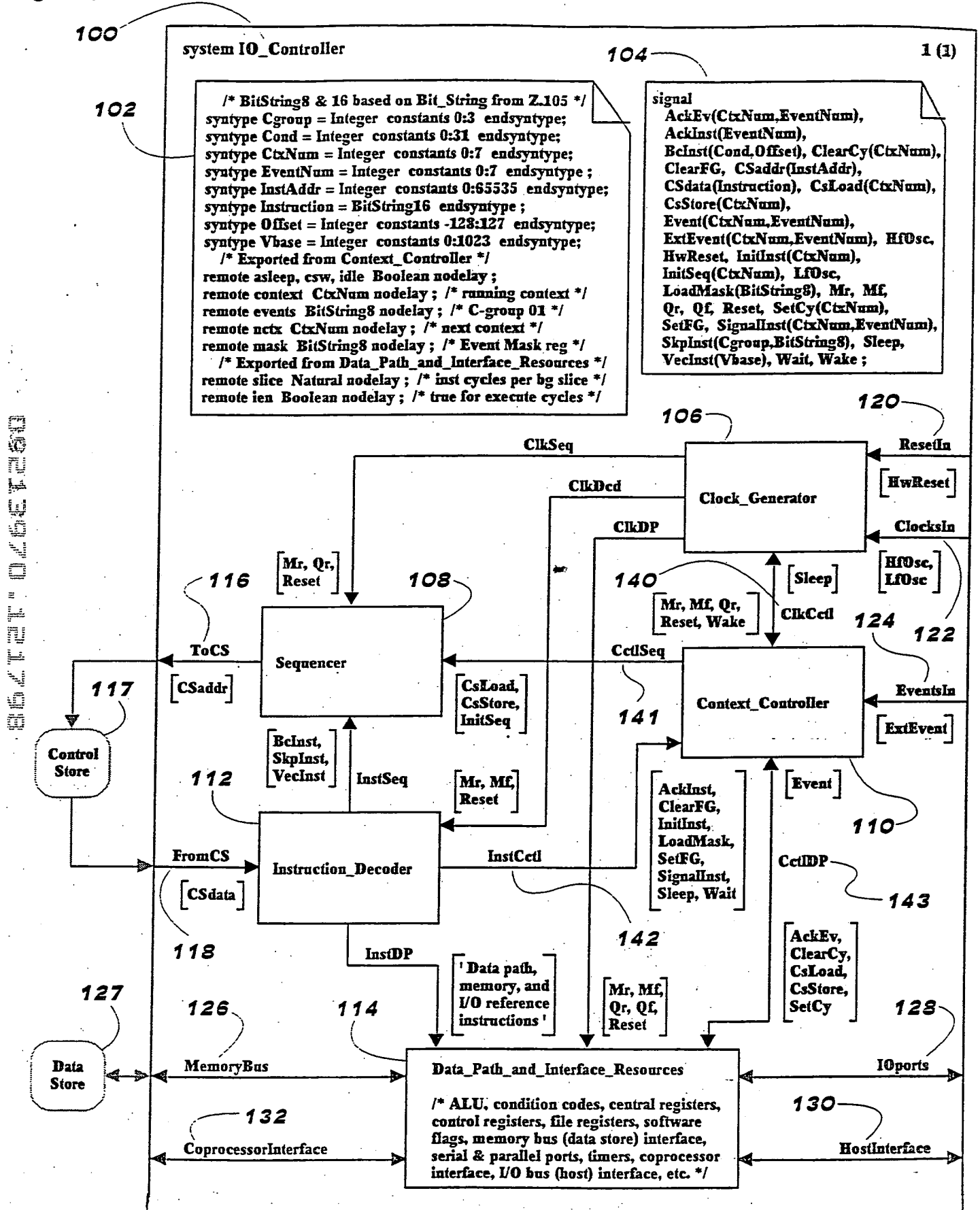
Figure\_2



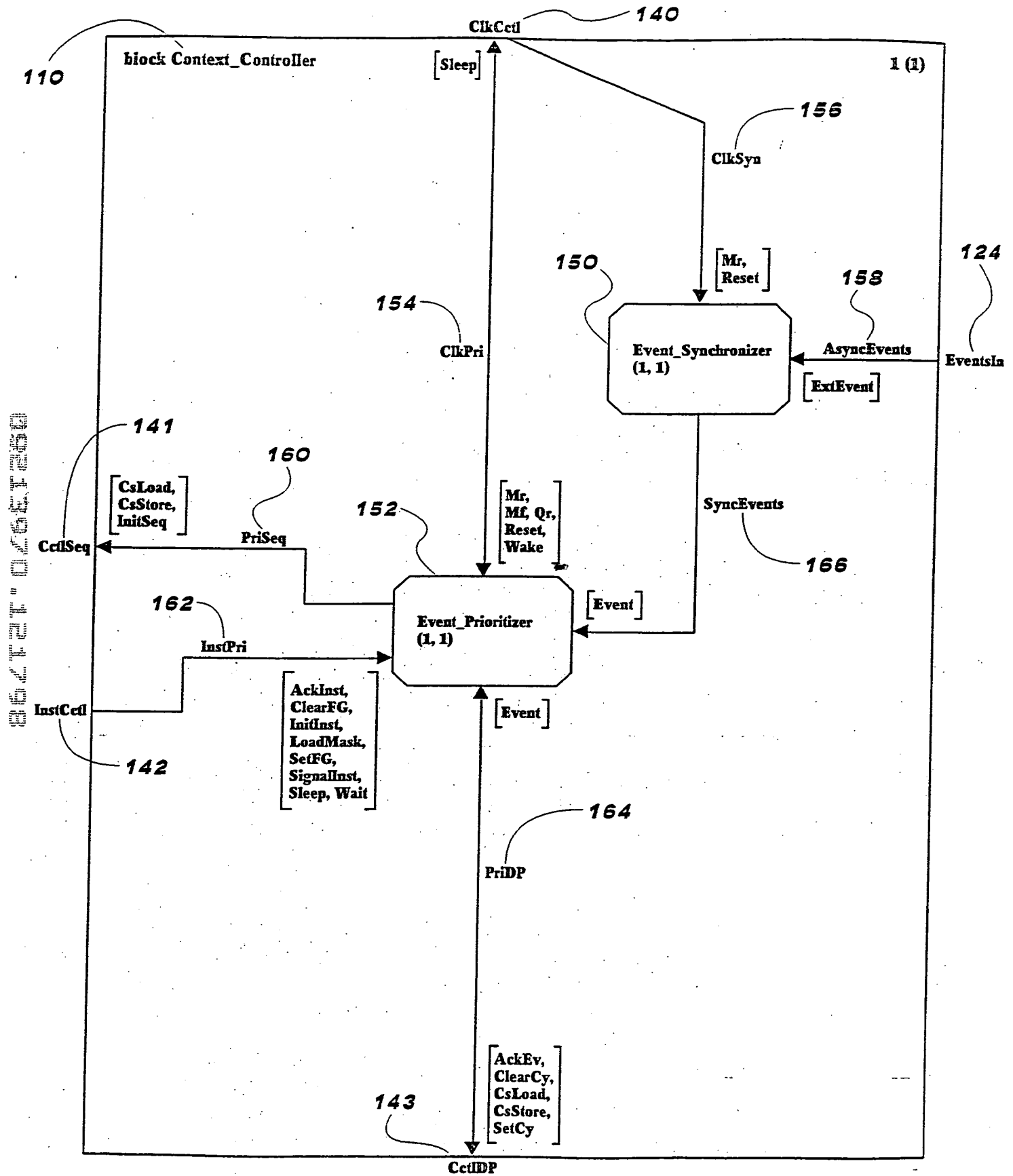
Figure\_3

0933970.12798  
867727 0762260

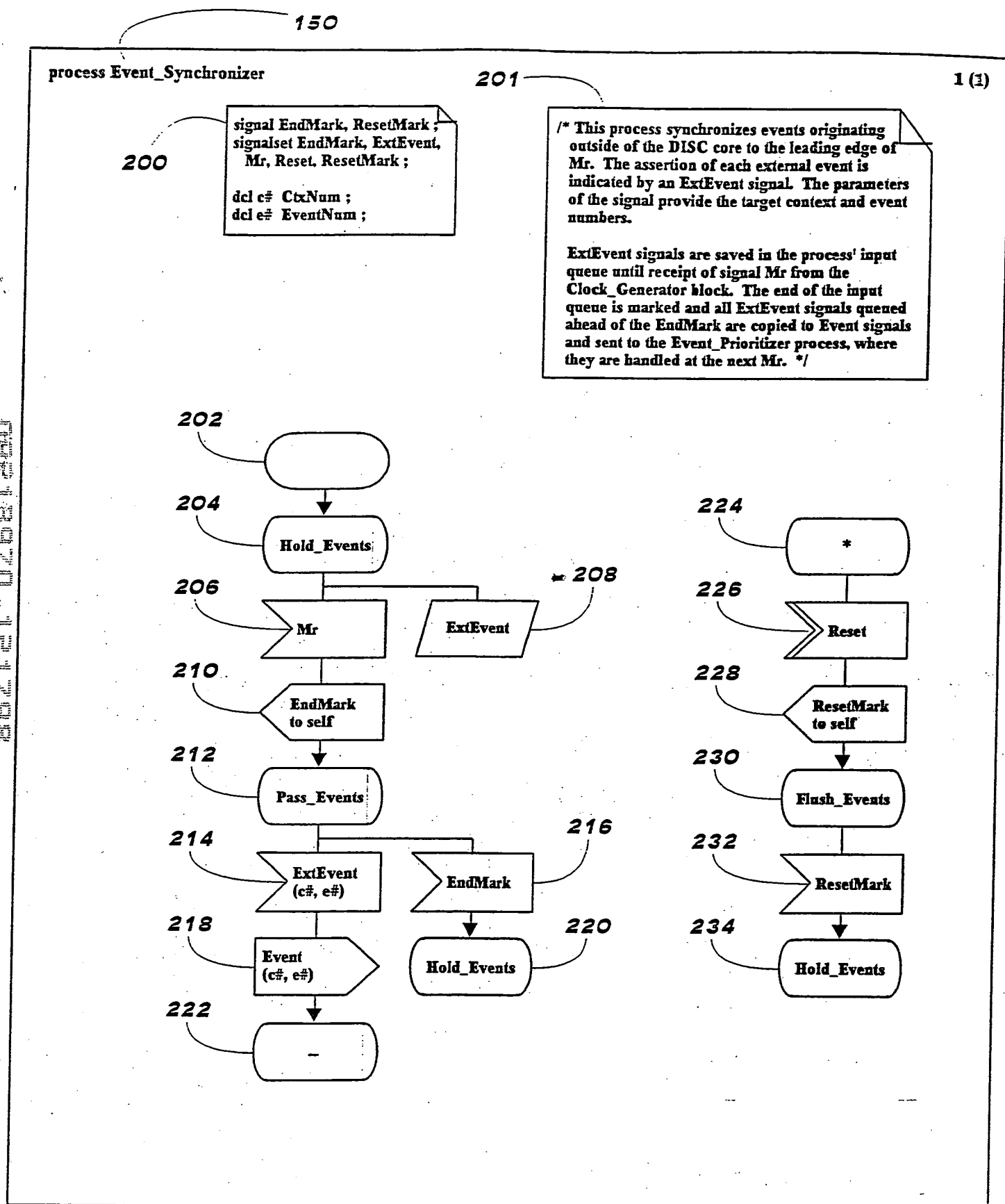
Figure\_4



Figure\_5



Figure\_6



Figure\_7A

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## process Event\_Prioritizer

/\* This process handles signals that alter event state, context activation state, or execution state (sleep, idle).

While Running, events, Signal Instructions, and loading the Event Mask are handled at once; while Ack, Init, Sleep, Wait, and Set/Clear FG are held on the process input queue until Mr. At Mr of execute (ien=1) cycles, any queued instruction (max=1/cycle) is processed, the context number, event flags (C-group 1) and event mask values are updated to reflect a possible context switch, and the slice count is decremented if the running context is in background. At Qr the activity flags are updated, then the highest priority active (fg) context, or current/next (bg) context is selected for execution at the next Mr, performing a context switch or going idle, starting at Mf, as appropriate. \*/

253

250

251

1 (2)

```

dcl act BitString8 ;
dcl c#, curBg CtxNum ;
dcl e# EventNum ;
dcl evMask, evStatus
  Array(CtxNum, BitString8) ;
dcl fg BitString8 ;
dcl k, l, prev CtxNum ;
dcl sliceCount Natural ;
dcl val BitString8 ;
dcl waited BitString8 ;

```

```

signal ResetMark ;
signalset
  AckInst, ClearFG,
  Event, InitInst,
  LoadMask,
  Mr, Mf, Qr, Reset,
  ResetMark, SetFG,
  SignalInst, Sleep,
  Wait,, Wake ;

```

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```

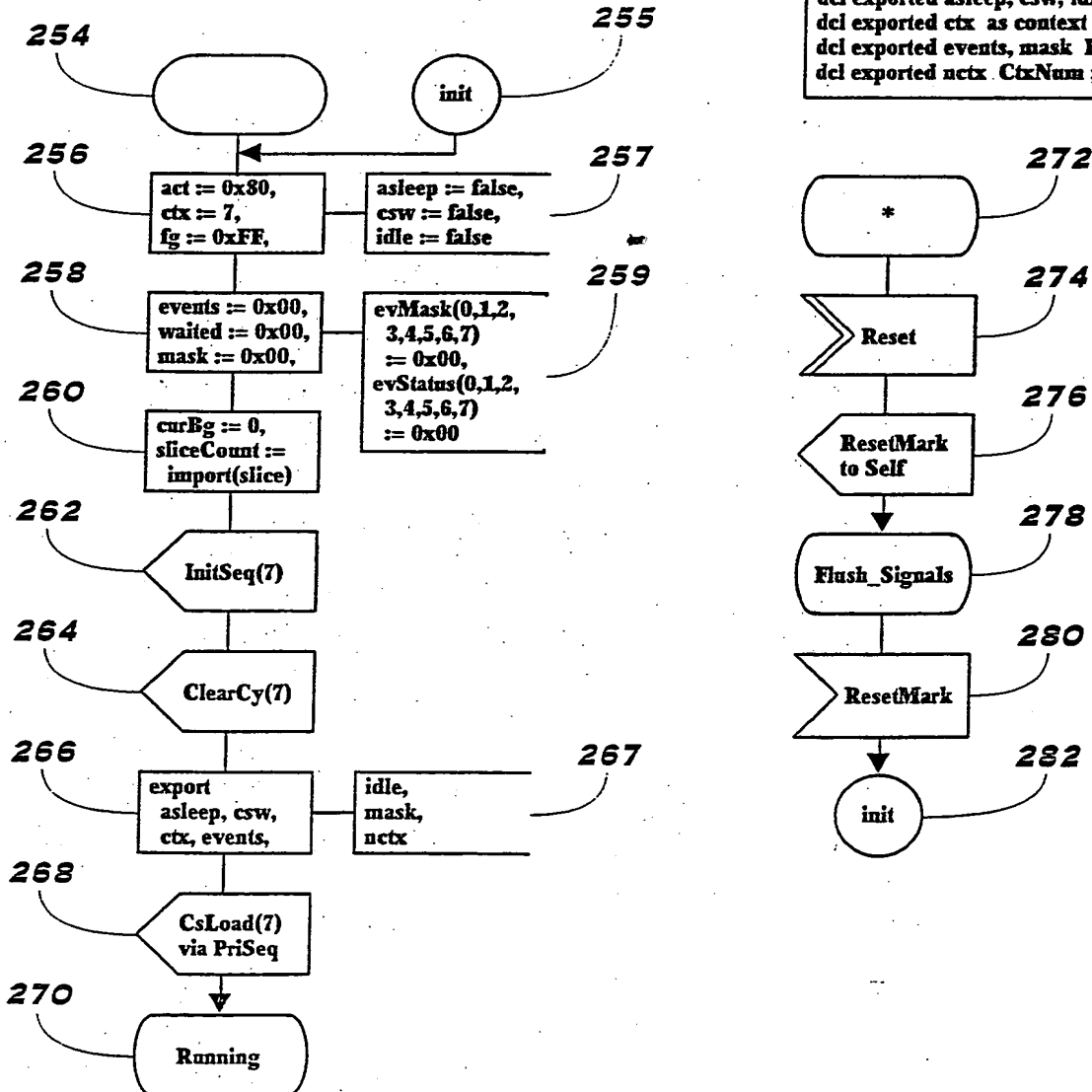
imported ien Boolean ;
imported slice Natural ;

```

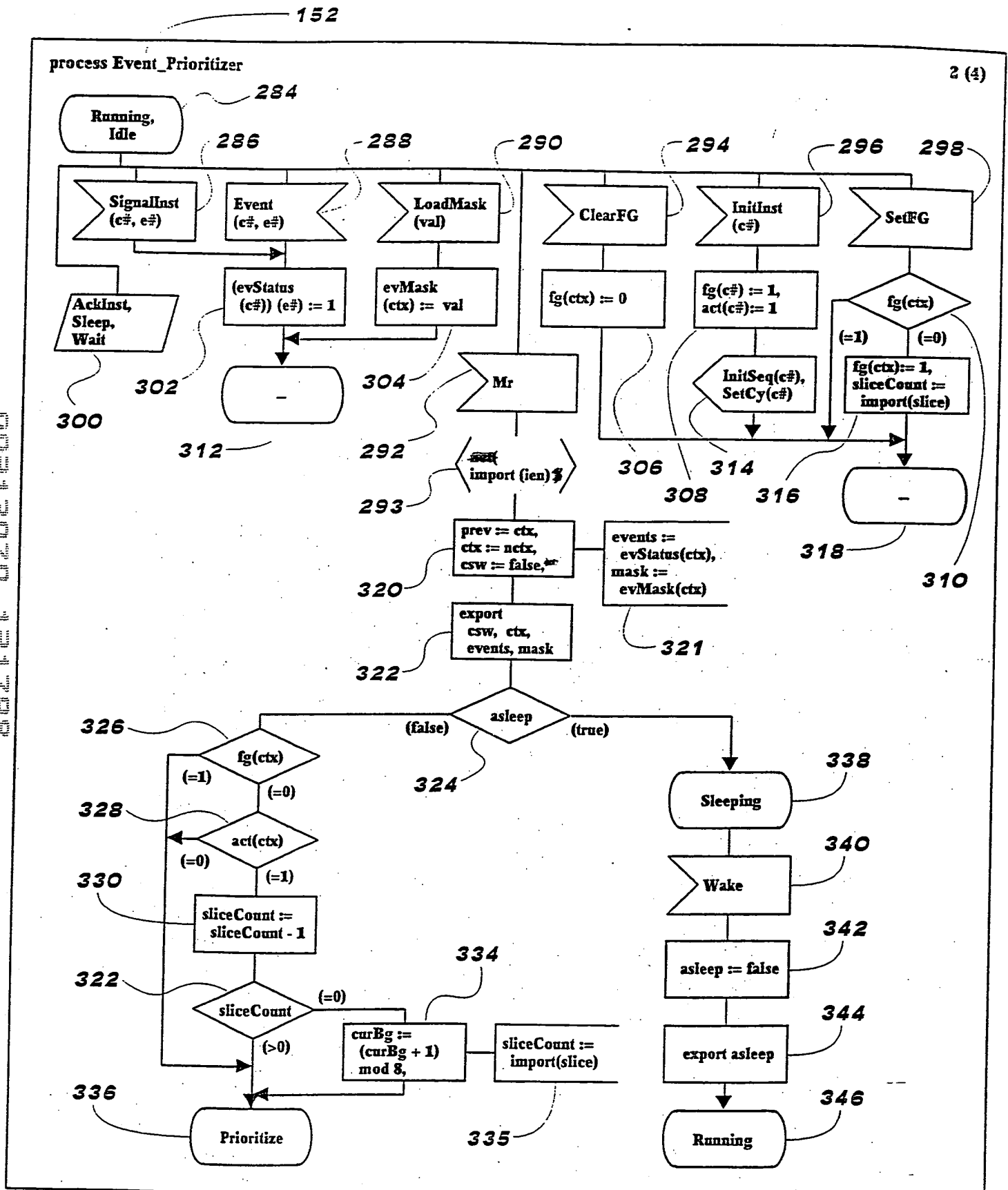
```

dcl exported asleep, csw, idle Boolean ;
dcl exported ctx as context CtxNum ;
dcl exported events, mask BitString8 ;
dcl exported nctx CtxNum ;

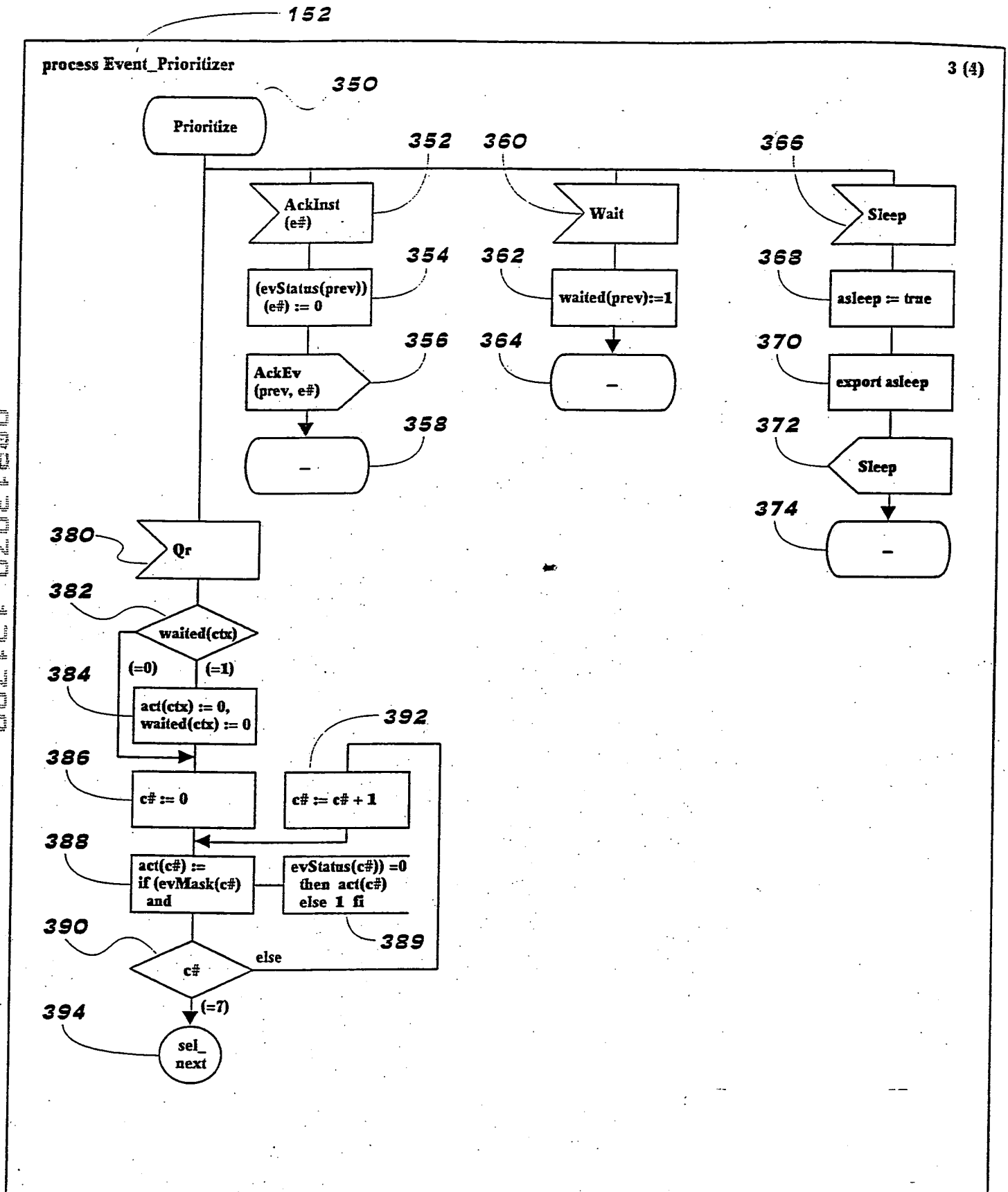
```



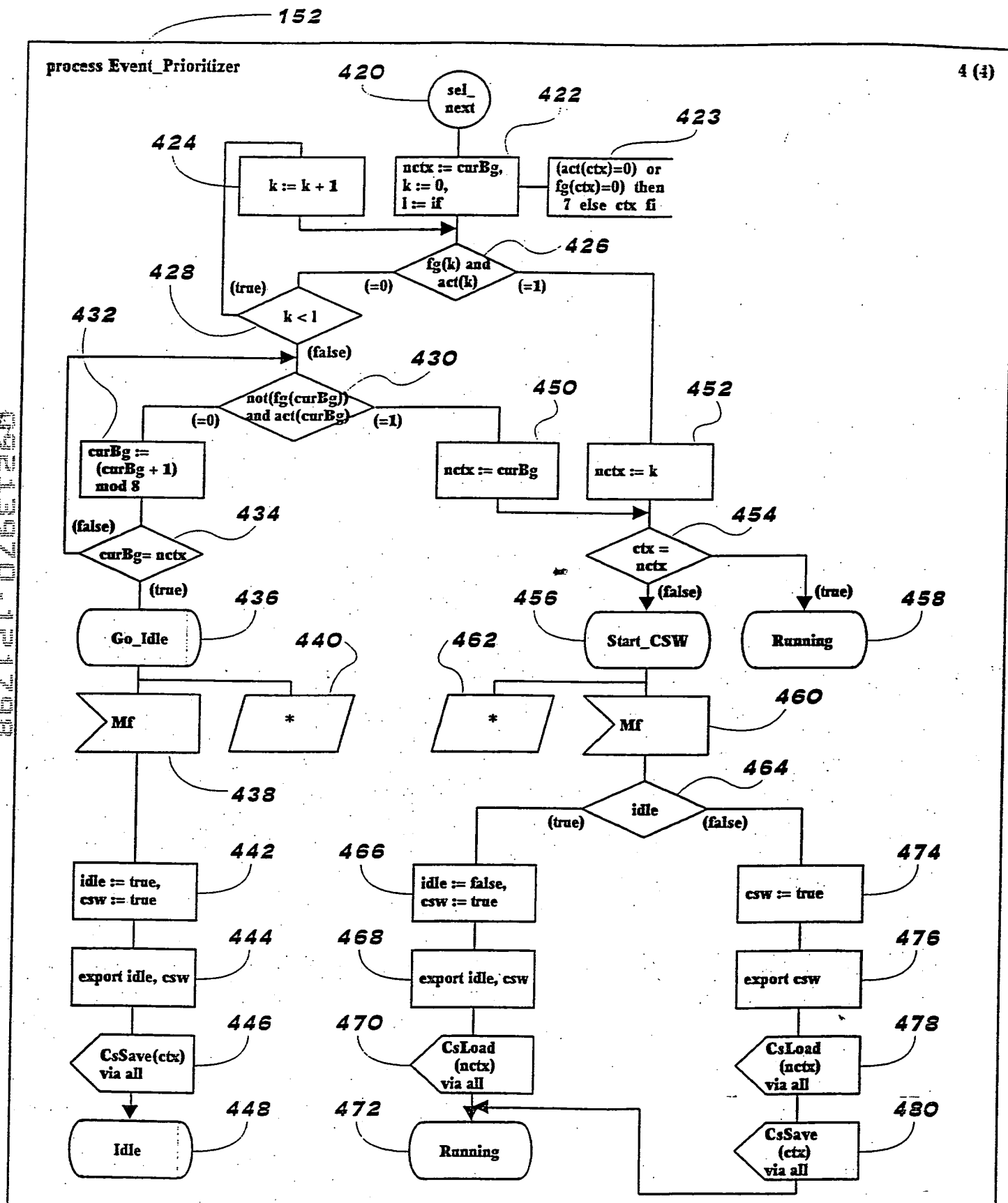
Figure\_7B



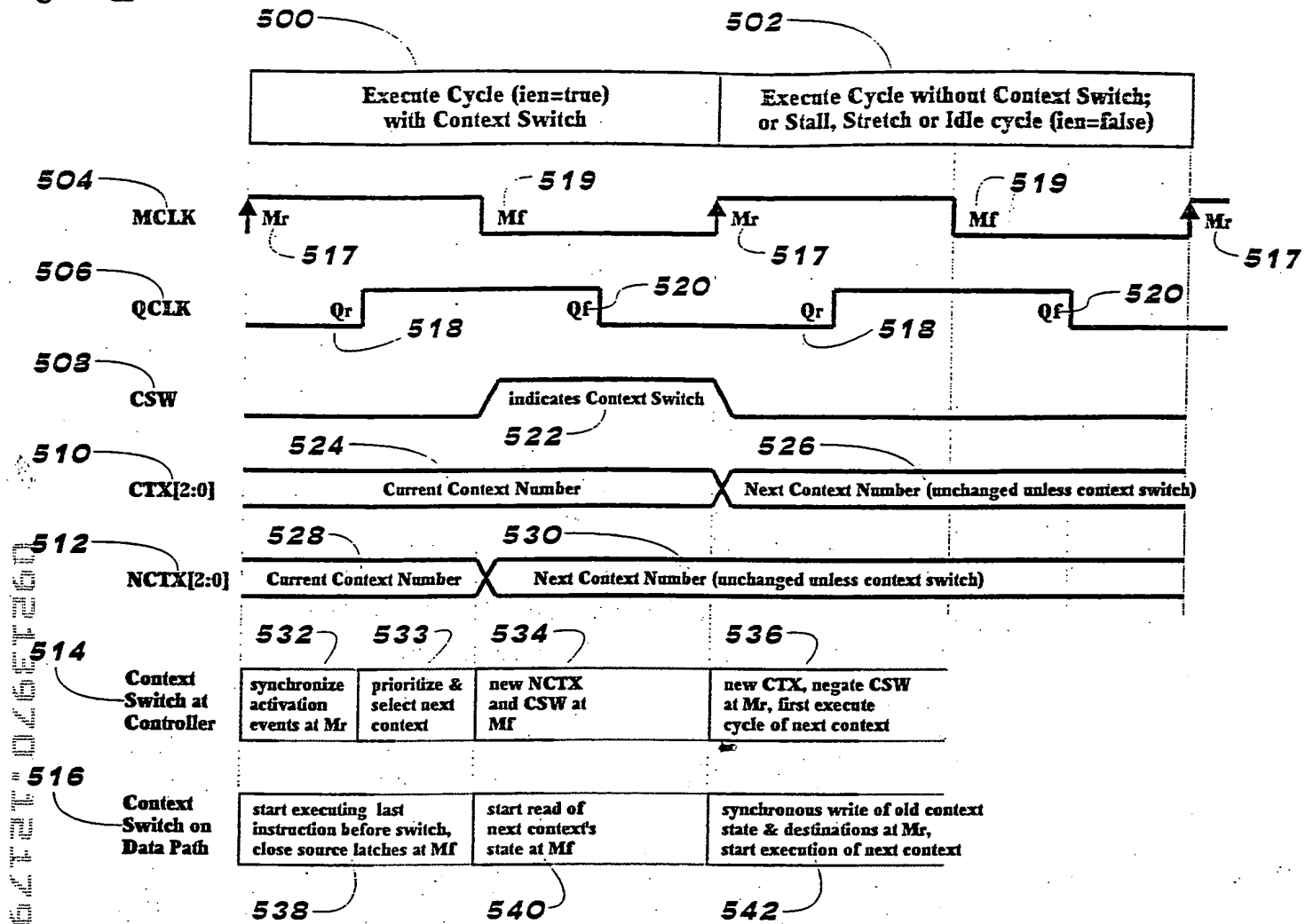
Figure\_7C



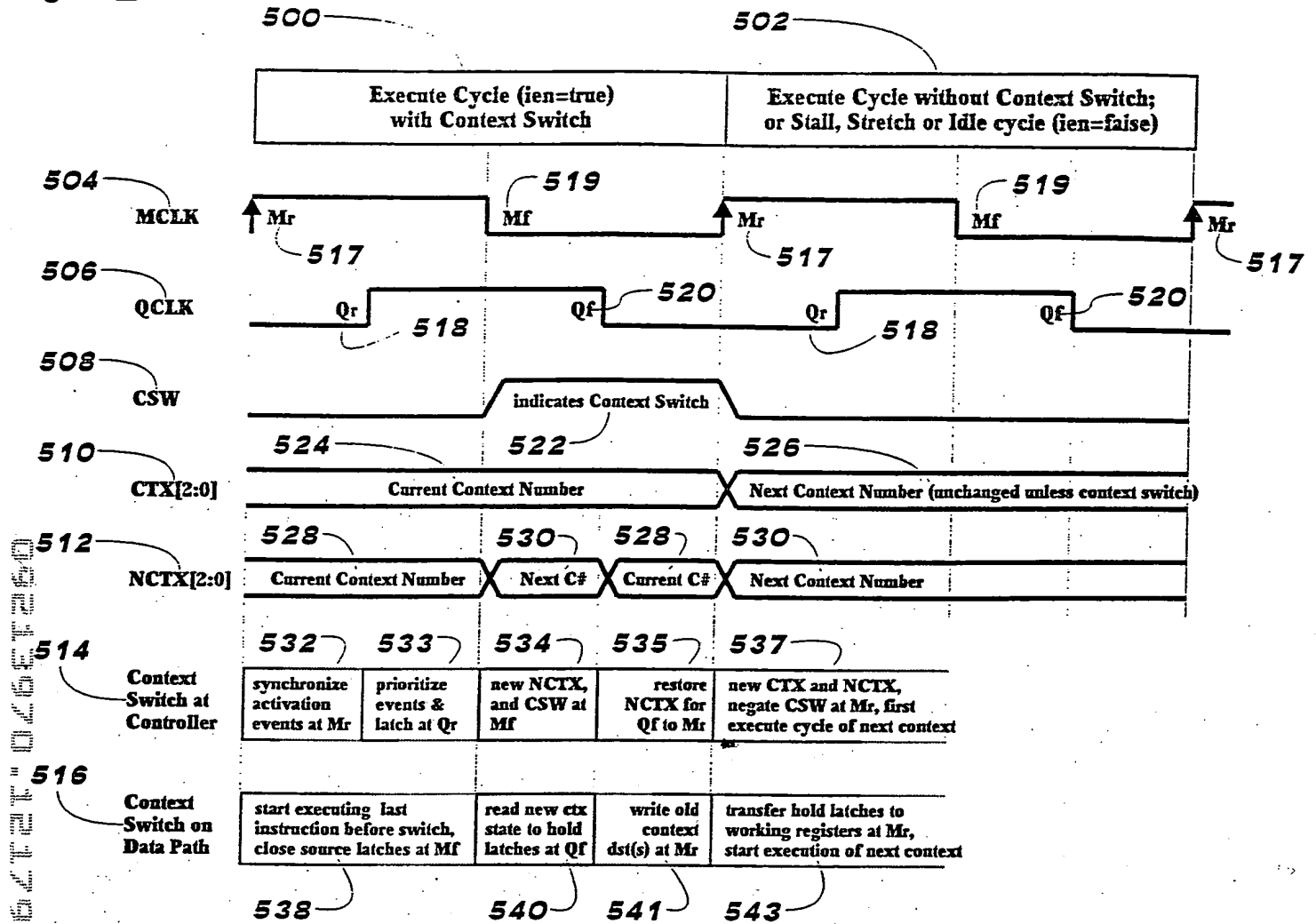
Figure\_7D



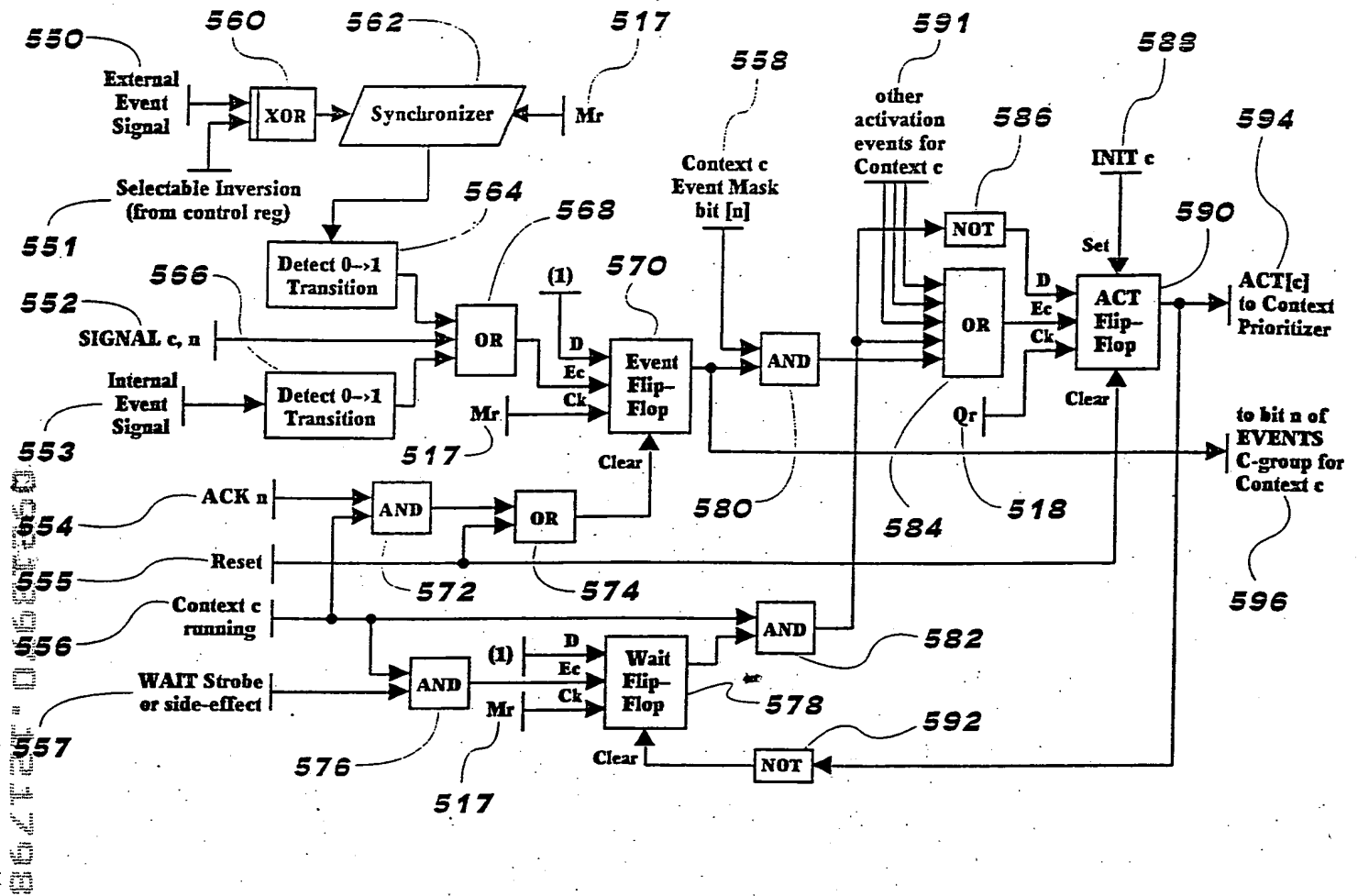
Figure\_8



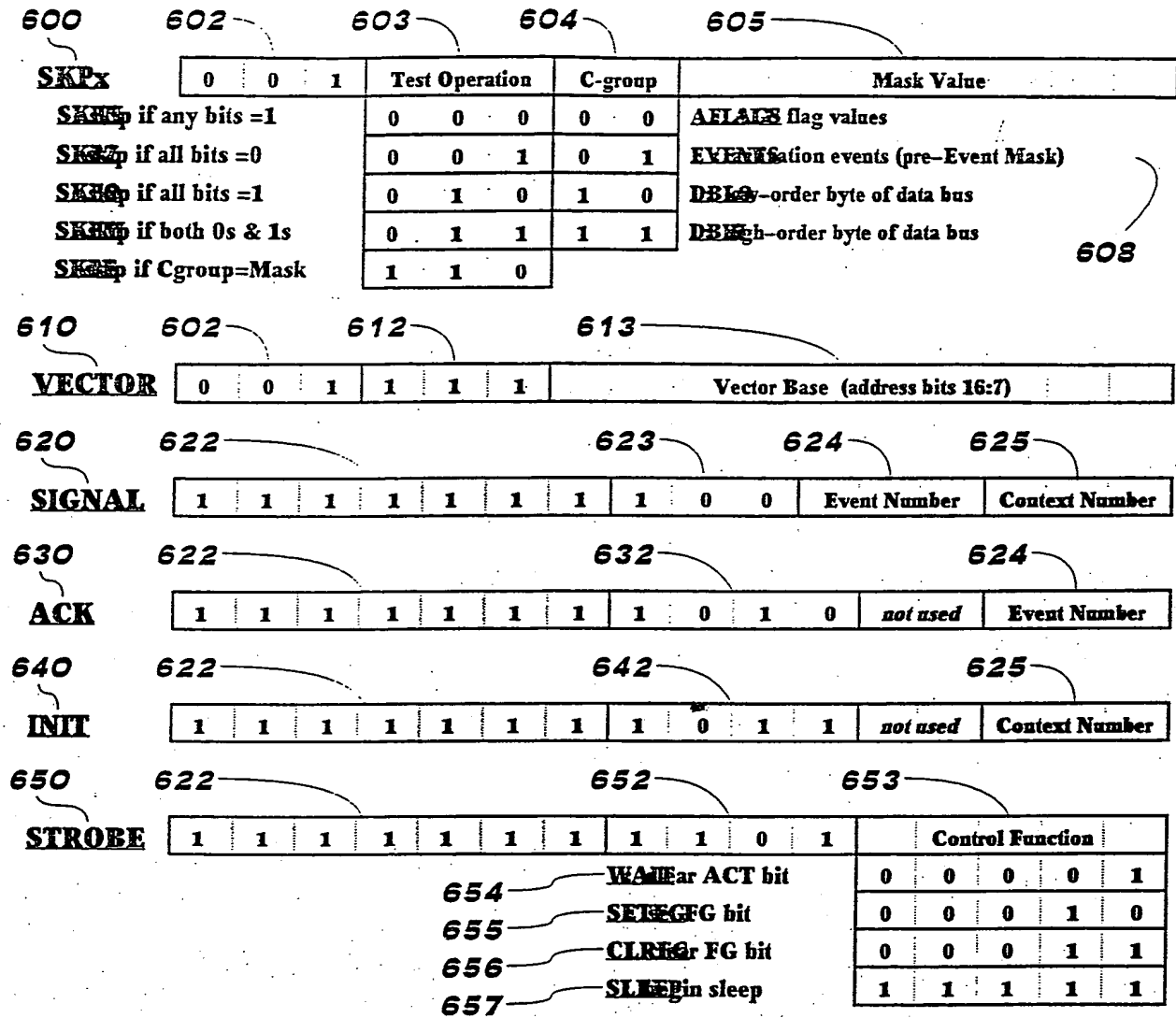
Figure\_9



Figure\_10

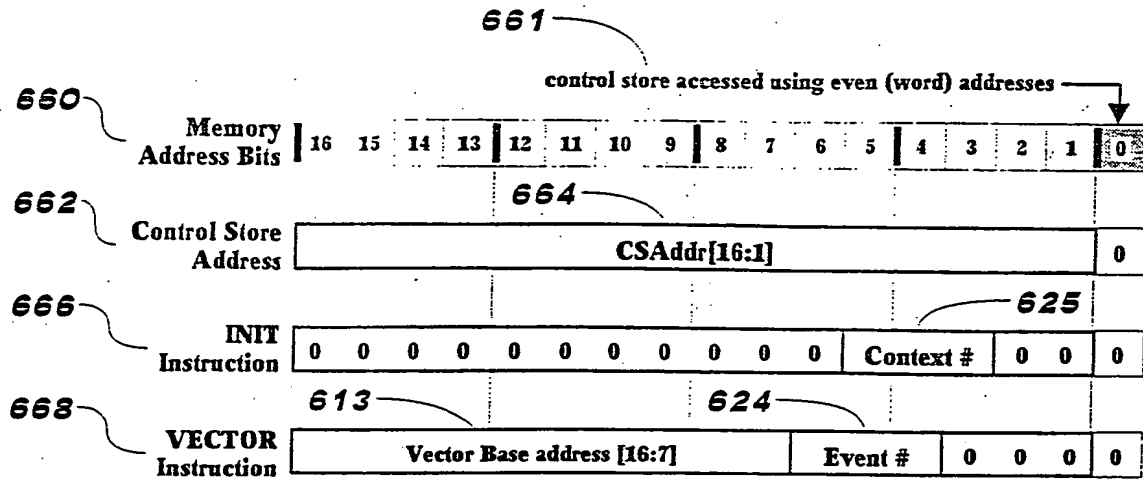


Figure\_11



00013970.121798

Figure\_12

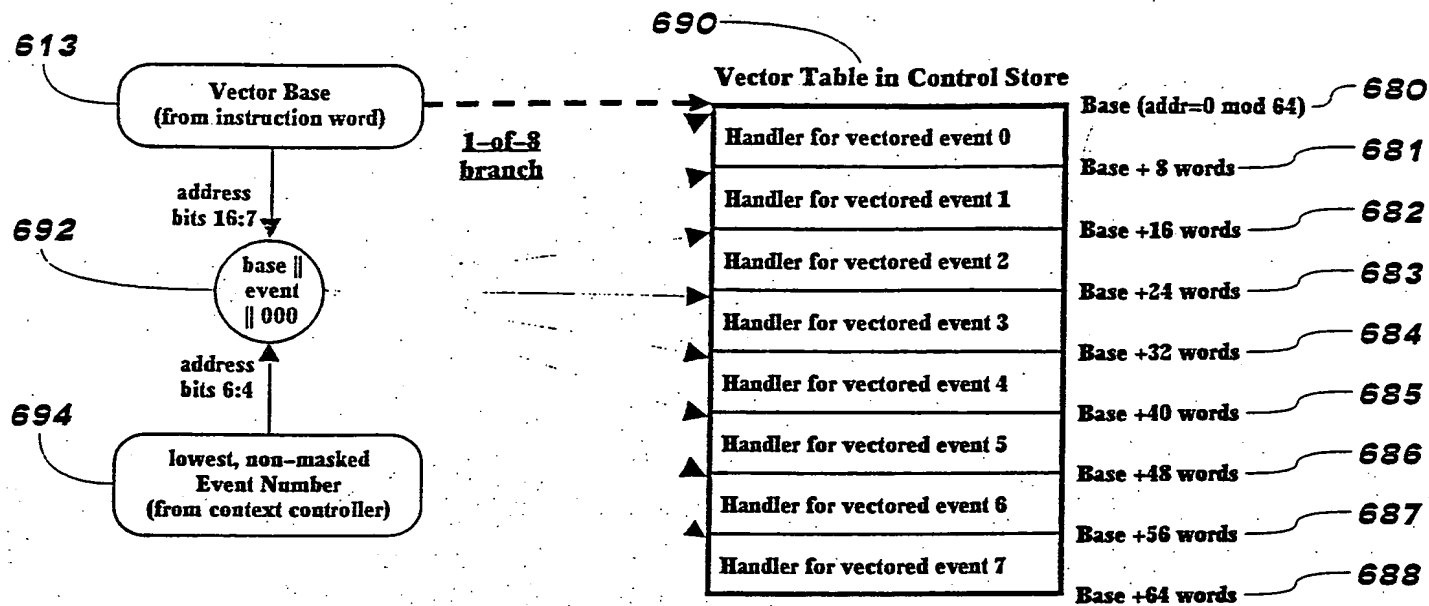


0000000000000000

# THE UNIVERSITY OF CHICAGO

Initialization Vectors		CS Word Addr
670	Context 0 Initialization Vector	0000
671	Context 1 Initialization Vector	0004
672	Context 2 Initialization Vector	0008
673	Context 3 Initialization Vector	000C
674	Context 4 Initialization Vector	0010
675	Context 5 Initialization Vector	0014
676	Context 6 Initialization Vector	0018
677	Context 7 Initialization Vector	001C

Figure\_14



00013970-12198